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A Rounded-Corner HUTCH for Rabbits

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U. S. DEPARTMENT OF AGRICULTURE

A ROUNDED-CORNER Hutch for Rabbits

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Domestic rabbits are now being raised in hutches commercially in all the States and extensively in many of them. According to the 1950 Census, rabbits were being raised on nearly 133,000 farms, of which about 13,000 were in California. It is estimated that more than 50,000,000 pounds of domestic rabbit meat is produced annually. In order to compete with producers of other types of meat, rabbit raisers must give special consideration to the costs of production.

The labor connected with raising rabbits consists largely in feeding and watering the animals daily, and in cleaning the hutches. The design of the hutch makes a great difference in the amount of labor involved. At the United States Rabbit Experiment Station in Fontana, Calif., a self-cleaning, two-compartment, rounded-corner hutch (fig. 1) that reduces labor and requires few repairs has been designed for use in warm climates and in rabbitries where the hutches are protected. It is adaptable for use in small or large operations.

The labor-saving equipment and management practices described here should reduce the time needed to care for a herd of rabbits by half.

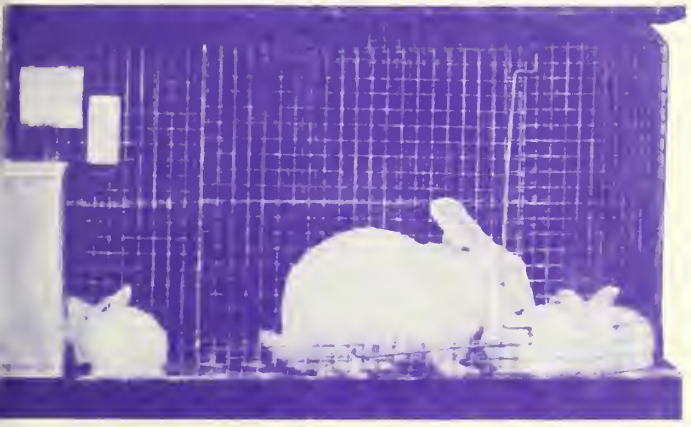

Figure 1.—Two-compartment rounded-corner hutch, with a feed hopper to serve both compartments.

This hutch can be supported in several ways. Corner posts, 2 by 2 inches, may be used. They should be long enough to give the desired height for convenience in cleaning underneath and in doing other work around the hutch. Another method of supporting the hutch is to rest it on a crosspiece nailed between the 2 by 4's that support the shed. The hutch might also be hung from the rafters or ceiling of the shed by means of heavy wire or light lumber. This method facilitates cleaning because it eliminates posts under the hutch.

[1] Mr. Templeton is director of the United States Rabbit Experiment Station, Fontana, Calif.

BILL OF MATERIAL FOR TWO-COMPARTMENT ROUNDED-CORNER HUTCH

The following materials will be needed for the hutch and feed hopper shown in figures 1, 2, and 3:

Frame:	2 pieces of clear lumber,[2] 1 by 3 inches by 8 feet. 3 pieces of clear lumber, 1 by 3 by 29¼ inches.
Floor Supports:	2 pieces of 26-gage galvanized metal, 3 inches by 8 feet, to be doubled and bent ∧-shape.
Floor:	1 piece of 16-gage mesh,[3] 30 inches by 8 feet, galvanized after welding.
Walls (front, ends, and back):	2 pieces of 24-gage, 1- by 1-inch mesh, 24 inches by 11 feet, galvanized.
Roof:	7 boards, 1 by 6 inches by 8 feet. 1 piece of 90-pound felt roofing, 3 by 8 feet.
Doors:	2 pieces of 24-gage, 1- by 1-inch mesh, 21 by 24 inches, galvanized.
Door Fasteners:	2 pieces of No. 9 galvanized wire, 3½ feet.
Miscellaneous:	One 5-gallon can and cover. ⅕ pound of eightpenny finishing nails. ⅕ pound of 1-inch staples. 20 small aluminum cage clips—for door hinges and fastening ends of wire walls. ½ box of corrugated fasteners, ⅜ by 5 inches, for fastening sheathing together. 2 feet of small wire—for securing door fasteners and ∧-shaped floor supports. 8 feet of ½-inch galvanized pipe. 2 water valves. Roofing felt and nails.

[2] Chestnut, cypress, hemlock, pine, redwood, spruce, or white fir.
[3] For small and medium breeds, use 1- by ½-inch mesh; for large breeds, 1- by ⅝-inch mesh.

HUTCH AND FEED HOPPER CONSTRUCTION DETAILS

Frame and Floor

The wooden frame for the floor of the hutch (fig. 2) is 8 feet long and 2½ feet wide. Two pieces of clear lumber 1 by 3 inches by 8 feet are used for the front and back; three pieces of lumber 1 by 3 by 29¼ inches are nailed between the front and back strips, using 1 piece at each end and 1 across the center.

It is advisable to provide additional supports for the floor, particularly when large litters approaching fryer size are to occupy the hutches. These supports should be strong, but as narrow as practicable to avoid collection of fecal material. The floor supports may be made of two pieces of 26-gage galvanized sheet metal, 3 inches by 8 feet. Each lengthwise edge is folded under, and then the strip is bent to about a 50° angle to a ∧-shape. (Fig. 2, upper left inset.)

The floor supports are countersunk in the three cross pieces at each end and across the center of the floor frame, one of them 9¾ inches from the front and the other the same distance from the back.

The frame is treated with creosote or other wood preservative to prolong its usefulness. When the frame is dry, the 16-gage, 30-inch by 8-foot galvanized wire mesh is stapled to it, using 1- by ½-inch mesh wire for the small and medium breeds of rabbits, and 1- by ⅝-inch for the larger breeds.

Compartments

Each completed compartment is approximately 2½ feet from front to back, 4 feet long, 23 inches high in front, and 21 inches high in back. Two pieces of galvanized wire, 24 inches by 11 feet, 1- by 1-inch mesh, 24 gage, are used for the walls. Along the lower strand, each upright wire is cut at the intersection, leaving 1-inch projections. The ends of each 11-foot piece of mesh are bound together with 6 small aluminum cage clips to form a compartment. The two compartments are then placed on the wire floor. The curved wall is about 5 inches from the corner of the frame. The 1-inch projections are placed straight down just inside the front, back, ends, and center strip of the floor frame, and secured with staples. At the curved corners the 1-inch wires projecting under the floor are bent against the bottom of the floor, and in line with the wall.

Starting at the curved surface at the front of the right end wall and proceeding across the back to the curved surface at the front of the left end wall, the two top

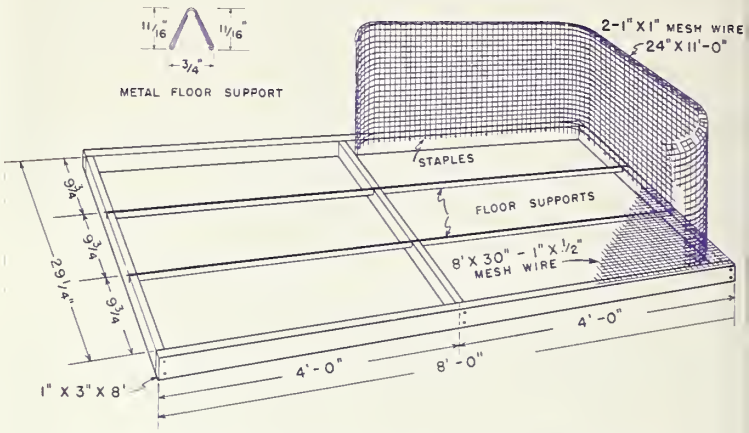

Figure 2.—Details of the floor construction of the hutch, including section of wire wall. Note that the wire corners are rounded, and that the two upper strands have been clipped at every third strand on the curves, sides, and rear. In the upper left-hand corner is a cross section of a metal floor support.

horizontal strands of wire are severed at every third strand. The 2- by 2-inch sections thus formed are bent in across the back of the hutch at about right angles; those in the curved part of the wall and the ends are bent in graduated degrees to give the roof a 2-inch pitch. The sheathing for the roof consists of seven 1- by 6-inch by 8-foot boards which have been fastened together with corrugated fasteners.

Door Openings

The door openings are cut 15 inches high and 20 inches wide, beginning 4 inches from the floor. The frame of the opening is reinforced by turning down 2 inches of wire on the inside across the bottom and turning up 2 inches of wire on the inside across the top so the finished opening will be 19 by 20 inches.

After the door openings are completed, the two compartments with floor now attached are turned upside down on the sheathing and stapled to it. The roofing felt is then fastened to the sheathing.

Doors and Door Fasteners

The doors are of 1- by 1-inch mesh, cut to a size of 21 by 24 inches. To give rigidity, 1 inch of the 24 inches is turned down on the inside across the top and 2 inches turned up on the inside across the bottom, the door then measuring 21 by 21 inches. It is then hung on the side nearest the feed hopper, which is between the two compartments. Four small aluminum clips for each door serve as hinges.

A right and a left door fastener (fig. 3, *F* and *G*) is made of No. 9 wire. The upright 1¾- and 1⅝-inch shanks (*G*) are fastened to the upright wall of the hutch with small wire and the fastener overlaps the edge of the closed door to make it secure. The "door line" bar (*F*) is bent outward slightly and serves as a spring, with the 1⅜-inch hook at the end going through the bottom mesh of the door and fastening under the top wire across the door opening.

Feed Hopper

The feed hopper, made from a 5-gallon can, supplies feed for both units of the hutch. Each compartment will hold approximately 10 pounds of pelleted feed.

Beginning 4¼ inches from the bottom of the can (fig. 3, *A*), the opening through which the rabbit feeds is cut 3¾ inches high and 3¼ inches wide. In order to make a smooth surface turn back ¼ inch to form a hemmed edge. The finished opening will then be 4¼ inches high and 3¾ inches wide.

It is important that the exact measurements be used, to prevent waste and contamination of feed. If improperly constructed, the hopper will not be satisfactory.

The baffle (fig. 3, *E*) is made of 24-gage galvanized metal cut according to pattern shown in *D* and is designed for use with small and medium breeds. For larger breeds, the opening should be enlarged accordingly.

The lid of the hopper requires a piece of tin large enough to cover the hopper and protrude 1 inch on all sides. On three sides one-fourth inch is folded back to make a smooth edge, and then three-fourths inch is bent down at a right angle to hold the lid in place. On the fourth edge an inch is folded flat to provide rigidity, and to permit the caretaker to slide the lid off the can and replenish the supply of pellets without removing the hopper from the hutch.

An opening should be made in the 1- by 1-inch mesh wire at the right hand side of the left compartment and at the left hand side of the right compartment for the feed hopper which should be set flush with the back edge of the wooden frame. A removable wire peg will hold the hopper in place.

Watering Device

A ½-inch galvanized water pipe is fastened to the back of and outside the hutch, 9 inches above the floor. This pipe is tapped and threaded and one water valve used for each hutch compartment. When properly installed, an automatic watering system makes fresh, clean water available at all times. Rabbits readily learn to drink from the valve, young rabbits doing so as soon as they come out of the nest box.

Metal hutch card holders and holders for such records as the breeder may wish to use on the hutch may be provided.

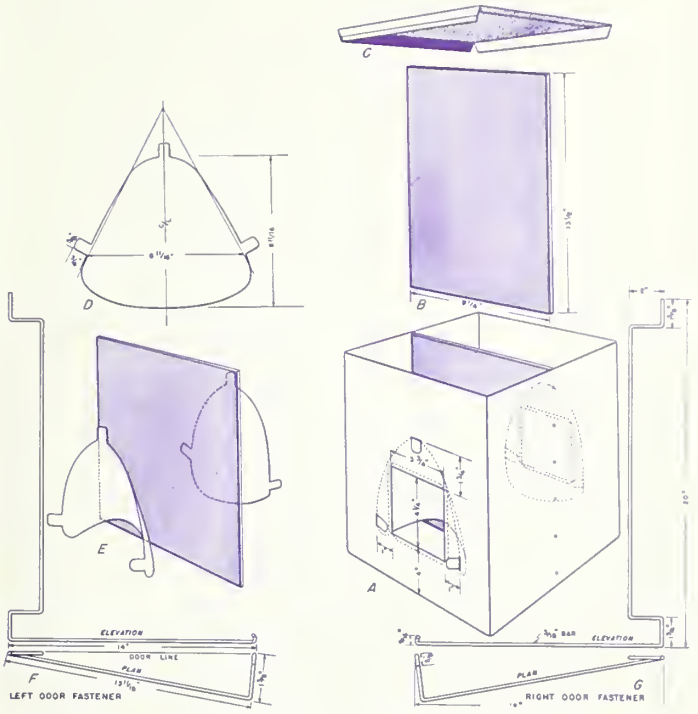

Figure 3.—Feed hopper for use in rounded-corner hutch. *A*, Completed feed hopper; *B*, partition which divides feed hopper into two compartments; *C*, lid, viewed from lower side, which slides over the hopper from the outside; *D*, diagrammatic pattern of the baffle which holds feed back from the opening at which rabbit feeds; *E*, the partition and baffle as it is curved to be inserted properly over the feed opening; *F*, two views of the wire fastener for the left door; the upper sketch shows fastener as viewed from the front of the hutch (fig. 1); and *G*, the right door fastener, which is the reverse of *F*.

Hopper-Feeding

Two types of pellets are adapted to hopper-feeding: (1) Alfalfa pellet made from No. 2 leafy or better grade of hay and containing 1 percent of salt; (2) Complete pellet.

The alfalfa pellet can be hopper-fed to developing junior bucks and does, as the only feed, from weaning at 2 months of age until they are ready to be started in production. This ration can also be fed to mature does until they have conceived.

After the does have conceived, as determined by pal-

pation 2 weeks after mating,[4] a complete pellet should be hopper-fed to them for the remainder of the gestation period and, following kindling, to the doe and litter until the litter is weaned at 2 months of age.

Herd bucks cannot be hopper-fed but must be hand-fed restricted quantities of feed. Developing juniors and dry does that are fed a complete pellet must also have their ration limited or they will put on too much flesh.

Advantages of Equipment

With the corners of the hutch rounded, the rabbits' feet come in contact with every part of the floor surface. Each foot acts as a sweeper, keeping the hutch in a sanitary condition. During the molting season some of the droppings may be bound together by fur fibers and hang suspended on the wire flooring but they can be removed easily by brushing the under side of the floor with a wire brush.

The hocks of the young rabbits are not injured through being caught in the hutch floor when the mesh is of the size specified.

As the automatic waterer and the feed hopper are filled from the outside, the hutch door does not have to be opened.

[4] Leaflet No. 245, United States Department of Agriculture. Palpating Domestic Rabbits to Determine Pregnancy.

Rabbit raisers need to keep production costs low. This leaflet tells how to build a new-type rabbit hutch, which saves labor in cleaning. It is simple and economical to build and needs few repairs.

It is designed for use in warm climates and in rabbitries where the hutches are protected.

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